AE Requirements for Electronic Bid Sets (EBS)

A. GENERAL

The Electronic Bid Sets (EBS) project consists of a standard for delivery and distribution of electronic solicitation. A procedure was developed in which potential bidders may view project plans, specifications, and contract documents on a CD-ROM. In order to view the solicitation documents, bidders need only have a Windows-based personal computer with a CD-ROM drive. Two royalty-free viewers are included on the CD-ROM to enable users to utilize the documents. One viewer enables bidders to view and print all text based documents (specifications and contract clauses) and the other viewer is used to view and print graphic documents (drawings). A simple icon based menu was developed to assist the user in manipulating through the documents and software.

B. CD-ROM FORMAT

The following is the directory structure which will be adhered to for the CD-ROM:

\Drawings*.CALS	Plans in CALS format
\Drawings\INDEX.TXT	Index of Plans in ASCII format
\SPECS*.PDF	Specifications in PDF

File Extensions:

File Ext.	Description	Program
TXT	Files in ASCII format.	Text Editor
PDF	Adobe's PDF files.	Acrobat Reader
CAL	CALS Group 4 graphic file.	SourceView Reader

C. SOFTWARE REQUIREMENTS

The following software is required for the EBS submittal in addition to the normal CADD and word processing software.

(1) Adobe Acrobat Exchange   For compiling and creating PDF files and distributing the Specifications Reader. (for sale from Adobe at the following web address http://www.adobe.com).

(2) Text Editor   For creating the drawing index file. Windows Notepad is a text editor.

(3) CALS Viewer   For quality check of CALS files
Available from Government EBS site (no Cost)

(4) CALS print driver   For Creating the CALS files from CADD files.

The following are known software packages, which have been used for creating CALS files from native CADD files. The designer is not limited to using these and they are listed for information only.

a. CALS raster ADI 4.3 printer driver - for R14 available for free from Autodesk (Does not support grayscale or screening) available on the EN FTP site.

b. Dimensional CALS Type 1 (CCITT G4 2D Compression) driver – Included with AutoCAD R2000. (Supports grayscale and screening).

c. Interplot Raster Offline Driver Pack - from Intergraph is a windows NT printer driver which works with any windows NT program, supports IPLOT configurations and will plot from AutoCad without needing APLOT. (Supports grayscale and screening) Approximate cost $400.

CALS Viewer and AutoCad R14 driver are available at the following address:
http://www.en.nab.usace.army.mil

D. GRAPHIC FORMAT

DRAWINGS

(1) Each drawing must be plotted or scanned to a CALS Type 1 Group 4 format raster file (.CAL) at 400dpi. The submitted CALS raster files shall be exact duplicates (proper scale, line weights, gray scale or screening, quality etc.) of the normally submitted contract drawings hard copy (blue line or mylar) set and will be distributed to bidders instead of paper copies (blue lines). There will be one CALS file submitted for each drawing sheet in the set. Each CALS file shall be named to reflect its sheet number following ISO 9660 standards (a maximum of 8 character file name with 3 character extension, alpha numeric without spaces, dashes or periods except for the file extension, for example drawing A-2 would be named a02.cal, M-406.10 would be M406_10.cal).

(2) An ASCII text file of the index of drawings cross-referenced to the CALS file name shall be submitted in the following space delineated format:
Filename.cal   Sheet number   Sheet title as shown in the drawing index
for example:
     A01.cal   A-1   First Floor Plan
     A02.cal   A-2   Second Floor Plan
See Figure 1 for an example of the required text file format.

SPECIFICATIONS

The Specifications (Div. 1-16) must be submitted using the Adobe Acrobat .PDF file format. AE shall submit individual PDF files, including project table of contents, all specifications, attachments, and combined submittal register. The submitted files must be readable using the Adobe Acrobat Reader , (version 5.0), which will be distributed on the EBS CD without any additional software programs required to be installed. It is the responsibility of the AE to ensure this level of compatibility.
The submitted files shall conform to the following file naming format: five/six-digit number/letter combination indicating the section submitted (e.g., "02220.pdf," "13281.pdf," or "13282A.pdf").

E. QUALITY CONTROL

Drawings:
   1.   Quality checks for CALS files.
        a.   View each CALS file for completeness. (is the drawing displaying as the designer intended.
        b.   Verify that each drawing is the correct scale by measuring the width and height of each sheet. The distance should be the same as a full size printed sheet.
   2.   Quality checks for Index file.
        a.   Check file list to ensure it includes all drawing sheets and is in the proper format.
        b.   View each drawing in set making sure a drawing appears for each sheet listed in the index.

Specifications:
   Quality checks for the .PDF files.
        a.   Page through each document, making sure that each section displays completely and correctly.
        b.   View all scanned images to ensure they are legible and printable.
        c.   Check that the table of contents is correct and corresponds to the files submitted.

F. ELECTRONIC DELIVERY MEDIA AND FORMAT

In addition to the normal review submittals, an EBS CD shall be submitted at the 90% for review of the CD structure, content and usability. One separate set of CALS files along with the EBS index shall be delivered to the Government on electronic digital media at the EBS submittal. All electronic digital data, CALS raster files and Adobe PDF files shall be provided on compact disc, read-only memory (CD-ROM) following ISO 9660 format. No compression or backup utilities shall be used to store the files on the CD-ROM.

G. FINAL SUBMITTAL FOR BID

The final bid submittal package for EBS will consist of a CD with the following:
  a. One ASCII text file, drawing index file
  b. One set of drawings in .cal format, each drawing in a separate CALS file.
  c. One set of specification sections (Div 1-16) in Adobe .pdf format, each section in a separate .pdf file.
  d. One table of contents for the specifications in a separate .pdf file.
  e. The combined submittal register in a separate .pdf file.
  f. The signature sheet either in a CALS file or full size hard copy, signed and sealed in accordance with SOP 1110-345-1 "Approval of Design Documents".

 Sample format: <u>ASCII Drawing Index File:</u>

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Military police Station, Ft Belvoir VA.
T1.cal    T-1    COVER SHEET
C1.cal    C-1    SURVEY INFORMATION AND VICINITY MAP
C2.cal    C-2    EXISTING CONDITIONS
C3.cal    C-3    DEMOLITION PLAN
C4.cal    C-4    LAYOUT PLAN
C5.cal    C-5    GRADING AND DRAINAGE PLAN
C6.cal    C-6    UTILITIES PLAN
C7.cal    C-7    SEDIMENT AND EROSION CONTROL PLAN
B1.cal    B-1    BORING LOCATION PLAN
B2.cal    B-2    SUBSURFACE EXPLORATION BORING LOGS & NOTES
LS1.cal   LS-1   LANDSCAPE PLAN
LS2.cal   LS-2   PLANT SCHEDULE AND TREE PLANTING DETAILS
A1.cal    A-1    FLOOR PLAN
A2.cal    A-2    ROOF PLAN
A3.cal    A-3    REFLECTED CEILING PLAN
A4.cal    A-4    BUILDING ELEVATIONS
A5.cal    A-5    WALL SECTIONS
A6.cal    A-6    PARTITION TYPES
A7.cal    A-7    TOILET PLAN ENLARGEMENT AND ELEVATIONS
A8.cal    A-8    FLOOR PATTERN DESIGNS
A9.cal    A-9    FURNITURE PLAN
S1.cal    S-1    ROOF PLAN
M1.cal    M-01   PACKAGE ROOF TOP AC FLOOR PLAN
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FIGURE 1